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ART UNIT 2628		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

### Office Action Summary

**Application No.**

10/733,406

**Applicant(s)**

HUH ET AL.

**Examiner**

Antonio A. Caschera

**Art Unit**

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 10-24 and 40-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-22, 40 and 42 is/are rejected.
- 7) ☒ Claim(s) 23, 24 and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in the pending application.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

With reference to the claim language of claims 40-42, these claims recite, either directly or indirectly, the language, "tangible recording medium" which the specification fails to provide proper antecedent basis for. The specification does clearly define the terms, "computer readable recording media" or "storage media" (see paragraph 77 of the specification and recently amended specification of 01/28/08) with context to storing a program, instructions or code for implementation of the invention however the explicitly used language of the claim is nowhere to be found in the specification and thus is not provided with proper antecedent basis. Note, Applicant's specification does limit the terms "computer readable recording media" or "storage media" to ROM, floppy disks, hard disks etc.(see paragraph 77 of the specification) which can reasonably lead one of ordinary skill in the art to equate the medium that is recited by Applicant to a statutory storage medium and also since there is no mentioning of a wave, carrier signal, network or Internet type language in the claim as it pertains to the processing program.

Therefore an applicable 35 USC 101 rejection is not valid in this case. (see *Response to Arguments* below)

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-7 and 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In reference to claim 1, the language of the claim raise questions as to whether the claims (claim 1 and all dependent claims) are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Specifically, newly implemented practices and procedures directed towards the analysis of claim language as per 35 U.S.C. 101 question the “method of generating characteristics data of illumination around an image display device,” as disclosed in claim 1. The above claimed process is not (1) tied to another statutory class (such as a particular apparatus) or (2) does not transform underlying subject matter to a different state or thing, Therefore the method is not a patent eligible process under 35 U.S.C. 101 and is rejected as being directed to non-statutory subject matter. Note, although the above claimed preamble does contain the word “device” the actual method for generating...and associated steps are not directly performed by or with the device and therefore the process is not tied to another statutory class.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 10, 11, 16, 19-22, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakabayashi et al. (U.S. Patent 6,628,822 B1) in view of Van Hook et al. (U.S. Patent 6,937,245).

In reference to claim 1, Nakabayashi et al. discloses a method of generating illumination characteristic data around an image display device (see column 1, lines 23-29, column 34, lines 48-54 and #S1, S2, 3 of Figure 2 and Figure 7), comprising:

obtaining predetermined illumination characteristic data around the image display device (see column 34, lines 48-65 and Figure 7 wherein Nakabayashi et al. discloses obtaining luminance of room light, luminance of a display monitor and lamp type data (viewing condition parameters) around or near the display monitor via a user input graphical interface); and

making the predetermined illumination characteristic data into a data format comprising *a type block* and an illuminance block (see columns 25-26, lines 61-61 and Figure 19 wherein Nakabayashi et al. discloses a method of formulating device profiles which hold illumination characteristics data. One such type of data being data equivalent to an illuminance block since it describes xyz white point chromaticity coordinates of a CRT monitor (see Figure 19)),

wherein *the type block* indicates information on a type of illumination, and the illuminance block indicates information on the illuminance of illumination (see columns 34-35, lines 48-9 and Figure 7 wherein Nakabayashi et al. explicitly discloses the viewing condition parameters to comprise of lamp type (i.e. fluorescent, incandescent, etc) and luminance level (i.e. light, normal, dark, customize) of both the level of light in the room and of the display monitor),

*the information on the type of illumination comprising at least one of a color temperature of illumination which is expressed by an 8-bit quantization value and a coordinate value having the range of [0,1] in chromaticity coordinates of illumination,*  
and

*the information on the illuminance of illumination being a numerical illuminance value which is represented in the units of Lux and has a value equal to or greater than 0.*

Although Nakabayashi et al. explicitly discloses obtaining chromaticity coordinates for a room of light (see Figure 7) and storing white point chromaticity coordinates for a monitor in a device profile (see Figure 19), Nakabayashi et al. does not explicitly disclose creating data in "block" type format. Van Hook et al. discloses a graphics computing system which stores control data in "block" type format and explicitly discloses a set of bits of a register entry as providing a "pixel type" flag (see column 5, lines 52-56, columns 21-22, lines 25-26 and Figure 15). Note, the Office interprets such "block" formatting of Applicant's claims equivalent to Van Hook et al.'s storing of different types of data within a data register entry especially in view of Applicant's Figure 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the data storing techniques of Van Hook et al. using the illumination and viewing condition data of Nakabayashi et al. in a single data format that

comprises lamp type information and luminance level information since the manipulation of such data into a single component/string of data would create an easier to manage, store and access data component since it is easier and faster to store/access/process lesser amounts of data (i.e. less number of data words) than a large amount of data words. Neither, Nakabayashi et al. or Van Hook et al. explicitly disclose chromaticity coordinate values in the range of [0,1].

However, it is well known in the art of computer graphics processing that the chromaticity of light, when described in xyz coordinates, is restricted to the range of [0,1] (Official Notice). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to interpret the chromaticity coordinates, as described in the invention of Nakabayashi et al. as inherently restricted to the range of [0,1]. Lastly, although Nakabayashi et al. discloses measuring the level of luminance information in  $\text{cd/m}^2$  (see column 51, lines 28-58 and #S3 of Figure 17 and Figure 7), Nakabayashi et al. nor Van Hook et al. explicitly disclose measuring luminance using the units of Lux so that values are equal to or greater than zero. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to utilize the measurement of Lux in the luminance sensing techniques of Nakabayashi et al.. Applicant has not disclosed that specifically utilizing the units of Lux for measuring luminance data provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the utilizing of  $\text{cd/m}^2$  units to represent measured luminance of Nakabayashi et al. since the explicit units of measure utilized in such context is interpreted as a matter decided upon by the inventor and to one which best suits the application at hand. For example, one may prefer to utilize SI units of measurement versus non-SI units dependent upon the country or area of the

world the invention is utilized within. Therefore, it would have been obvious to one of ordinary skill in this art to modify the combination of Nakabayashi et al. and Van Hook et al. to obtain the invention as specified in claim 1.

In reference to claim 2, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 1 above. Nakabayashi et al. discloses the viewing condition parameters obtained directly from a user via a graphical user interface (see column 34, lines 48-65 and Figure 7).

In reference to claims 3, 7 and 20, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claims 2, 6 and 19 respectively. Nakabayashi et al. explicitly discloses the viewing condition parameters to comprise of lamp type (i.e. fluorescent, incandescent, etc) and luminance level (i.e. light, normal, dark, customize) of both the level of light in the room and of the display monitor (see columns 34-35, lines 48-9 and Figure 7). Note, the Office interprets the lamp type data and luminance level data of Nakabayashi et al. equivalent to the “information on the type of illumination” and “information on the illuminance of illuminance” respectively of claims 3, 7 and 20.

In reference to claim 4, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 3 above. Nakabayashi et al. explicitly discloses the lamp type data to be selected from one of fluorescent, incandescent, D65, D50 or customize settings (see column 34, lines 57-60).

In reference to claim 5, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 3 above. Nakabayashi et al. explicitly discloses the luminance



level data to be selected from one of light, normal, dark, customize settings (see column 34, lines 60-65).

In reference to claim 6, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 1 above. Nakabayashi et al. discloses an alternate embodiment wherein sensors read the viewing conditions around the display monitor (see column 24, lines 52-64 and S1, S2 of Figure 2).

In reference to claim 10, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 2 above in addition, Nakabayashi et al. explicitly discloses the parameters associated with the user interface set settings, stored in order to enable readout of parameters such as xy chromaticity point, CCT, luminance of room or luminance of monitor (see column 35, lines 10-15). Note, the Office interprets such “storing” and “enabling...readout of parameters” functionally equivalent to indexing in the utilizing of a table as claimed in claim 10. Nakabayashi et al. also explicitly discloses the type of luminance/lamp to be selected from fluorescent, incandescent, etc which further comprises CCT (correlated color temperature) values associated thereto (see columns 34-35, lines 48-9 and Figure 7).

In reference to claim 11, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 6 above in addition, Nakabayashi et al. explicitly discloses the parameters detected by the sensor utilized in reading out CCT of a monitor (see column 28, lines 36-50). Nakabayashi et al. also explicitly discloses the type of luminance/lamp to be selected from fluorescent, incandescent, etc and luminance level (i.e. light, normal, dark, customize) of both the level of light in the room and of the display monitor (see columns 34-35, lines 48-9 and Figure 7).

In reference to claim 16, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 1 above. Although Nakabayashi et al. discloses measuring the level of luminance information in  $\text{cd/m}^2$  (see column 51, lines 28-58 and #S3 of Figure 17 and Figure 7), neither Nakabayashi et al. or Van Hook et al. explicitly disclose measuring luminance using the units of Lux. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to utilize the measurement of Lux in the luminance sensing techniques of Nakabayashi et al.. Applicant has not disclosed that specifically utilizing the units of Lux for measuring luminance data provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the utilizing of  $\text{cd/m}^2$  units to represent measured luminance of Nakabayashi et al. since the explicit units of measure utilized in such context is interpreted as a matter decided upon by the inventor and to one which best suits the application at hand. For example, one may prefer to utilize SI units of measurement versus non-SI units dependent upon the country or area of the world the invention is utilized within. Therefore, it would have been obvious to one of ordinary skill in this art to modify the combination of Nakabayashi et al. and Van Hook et al. to obtain the invention as specified in claim 16.

In reference to claim 19, claim 19 is equivalent in scope to claim 1 and is therefore rejected under like rationale. In addition however, since claim 19 does disclose an apparatus, Nakabayashi et al. discloses obtaining luminance of room light, luminance of a display monitor and lamp type data (viewing condition parameters) around or near the display monitor via a user input graphical interface (see column 34, lines 48-65 and Figure 7). Note, the Office interprets the both the CPU and sensor of Nakabayashi et al. to function equivalent to the "illumination

characteristic obtainer” and “illumination characteristic generator “ of Applicant’s claim (see #S3 of Figure 17).

In reference to claim 21, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 19 above. Nakabayashi et al. explicitly discloses the type of luminance/lamp to be selected from fluorescent, incandescent, etc which further comprises CCT (correlated color temperature) values associated thereto (see columns 34-35, lines 48-9 and Figure 7). Although Nakabayashi et al. discloses measuring the level of luminance information in  $\text{cd/m}^2$  (see column 51, lines 28-58 and #S3 of Figure 17 and Figure 7), Nakabayashi et al. or Van Hook et al. do not explicitly disclose measuring luminance using the units of Lux. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to utilize the measurement of Lux in the luminance sensing techniques of Nakabayashi et al.. Applicant has not disclosed that specifically utilizing the units of Lux for measuring luminance data provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant’s invention to perform equally well with the utilizing of  $\text{cd/m}^2$  units to represent measured luminance of Nakabayashi et al. since the explicit units of measure utilized in such context is interpreted as a matter decided upon by the inventor and to one which best suits the application at hand. For example, one may prefer to utilize SI units of measurement versus non-SI units dependent upon the country or area of the world the invention is utilized within. Therefore, it would have been obvious to one of ordinary skill in this art to modify the combination of Nakabayashi et al. and Van Hook et al. to obtain the invention as specified in claim 21.

In reference to claim 22, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 19 above. Nakabayashi et al. discloses, in alternate embodiments, utilizing a sensor and a user interface for obtaining luminance data (see column 24, lines 52-64, column 34, lines 48-65 and #S1, S2 of Figure 2 and Figure 7).

In reference to claim 40, claim 40 equivalent in scope to claim 1 and is therefore rejected under like rationale. In addition however, since claim 40 does disclose a tangible recording medium on which characteristic data is stored, Nakabayashi et al. discloses a recording medium on which illumination characteristic data comprising a data format comprising *a type block for* indicating information on a type of illumination and *an illuminance block for* indicating information on illuminance of illumination is recorded (see column 8, lines 47-57 and columns 34-35, lines 48-9 and Figure 7).

In reference to claim 42, Nakabayashi et al. and Van Hook et al. disclose all of the claim limitations as applied to claim 1. Nakabayashi et al. discloses a computer-readable medium on which the invention of claim 1 is recorded as a computer-executable program (see column 8, lines 47-57).

#### ***Allowable Subject Matter***

5. Claims 23, 24 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In reference to claims 23, 24 and 41, the prior art of record does not explicitly disclose including in the illumination type block data, a flag to indicate whether data in a type payload is

a color temperature value or a chromaticity value in combination with the further limitations of the above mentioned claims along with all of the limitations of their independent claims, from which they depend upon. Note, claims 41 does suffer from other issues as seen above while claims 12-15 would be objected to for the above reasons if the above 35 USC 101 issues were corrected for.

***Response to Arguments***

6. Applicant's arguments, see pages 3-5 of Applicant's Remarks, filed 06/03/08, with respect to the rejection(s) of claim(s) 1-7, 10, 11, 16, 19-22, 40 and 42 under 35 USC 103(a) in view of Nakabayashi et al. solely have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakabayashi et al. and Van Hook et al..

7. Applicant's arguments filed 06/03/08 have been fully considered but they are not persuasive.

In reference to the objection of the specification, Applicant argues that the recited "tangible recording medium" of the claims has antecedent basis in the specification through the terms "computer readable recording media" and "magnetic storage media" (see page 2, last paragraph of Applicant's Remarks) and therefore the objection should be withdrawn.

The Office firmly disagrees and firstly points out that according to the current practices and procedures by the Office in view of 35 USC 101, the explicitly used language of the claims must be recited word-for-word in the specification. In view of such, the term "tangible recording medium" is not explicitly recited in the specification although a definition of the term can be

inferred by the teachings of the specification. Also, such claims 40-42, which comprise the language in question, were not originally filed as comprising the language in question therefore the language cannot be considered part of the original specification/disclosure and further cannot be provided with correct antecedent basis. The Office states that such an issue can simply be corrected for by substituting what is exactly stated in the specification (i.e. "computer readable recording media", paragraph 77 which was recently amended, see 01/28/08) for the language in question. Meanwhile, the Office must maintain the objection to the specification.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

### **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

### **or faxed to:**

**571-273-8300 (Central Fax)**

Art Unit: 2628

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

/Antonio A Caschera/

Examiner, Art Unit 2628

Temporary Full Signatory Authority

**8/22/08**